

5-STEP BALANCING PROCEDURE



LUDECA

1



Pre-Balance Checks

2



Analysis Check & Initial Readings

3



Initial Measurement to Confirm Unbalance

4



Initial Trial Weight Data Collection

5



Correction & Trim to Tolerance and Documentation



Safety:
Lock-out and tag-out machines.



Enter machine data into balancing instrument.



Review Analysis Spectrums and Time Waveforms.



Place trial weight(s) in the location(s) recommended by balancing instrument.



Place correction/trim weight(s) as indicated by balancing instrument.



Visual inspection of rotating components.



Securely mount tachometer and reflective tape.

>50%

If axial vibration at RPM is greater than 50% of radial vibration at RPM, further analysis is necessary.



Check for good tachometer reading and collect the balance data with trial weights attached.



Review balance condition. If the vibration meets the chosen tolerance specification then store results.



Clean accumulated buildup.

Check balancing instrument for good and consistent phase and tachometer readings, then collect the initial balance condition.



Radial spectrums should indicate the highest vibration frequency is at the actual rotating speed (1x) of the machine. If not the case then further analysis is necessary.

30%

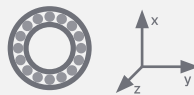
Look for 30% change in amplitude and/or phase data to ensure good balancing response.



If balance requires further trim weight to meet the tolerance specification, repeat Step 5 until tolerance is met.



- Equipment Check:
- Balancing instrument
 - Sensors
 - Reflective tape
 - Tachometer
 - Mounting hardware
 - Balance weights
 - Flashlight
 - Blade scraper
 - Weight scale



Collect radial horizontal, radial vertical and axial spectrum data at the bearing.



Inconsistent phase readings should be identified and corrected before attempting balance corrections.



If unbalance is confirmed and the machine does not meet the chosen tolerance specification, proceed to Step 4.



Remove or leave in place the trial weights as indicated by the balancing instrument.



Print the report to document final balance condition.



Identify best weight placement locations.



Check for loose bolts, cracks, etc.